Proposed Item for Biobased Designation

The following biobased product information has been collected to support item designation by USDA for the Federal Biobased Product Preferred Procurement Program (FB4P). This summary reflects data available as of September 15, 2005.

Title: Water Tank Coatings

Description: Water tank coatings represent that group of products formulated for use in potable water storage systems to provide a durable maintenance free protective liner. These products are typically applied as a sprayed on thick film coating. Water tank coatings can be applied over both concrete and steel water tanks and reservoirs providing extended lifecycle protection.

Manufacturers Identified: 1 manufacturers producing Water Tank Coatings have been identified through internet searches, manufacturer's directories, trade associations, and company submissions.

Industry Associations Investigated: The following industry associations have been investigated for member companies producing Water Tank Coatings:

- Biobased Manufacturers Association
- Spray Polyurethane Foam Alliance
- National Paint & Coatings Association
- Roof Coatings Manufacturers Association
- National Roofing Contractor's Association
- Alliance for the Polyurethanes Industry
- The American Plastics Council
- Polyurethane Manufactures Association National Association of Home Builders
- Building Materials Resource
- Net Composites/Polyurethane Foam
- The Corrosion Society
- Steel Structures Painting Council
- American Water Works Association
- National Association of Pipe Coating Applicators

Commercially Available Products Identified: Of the manufacturers identified, 1 Water Tank Coatings are commercially available on the market.

Product Information Collected: Specific product information including company contact, intended use, biobased content, and performance characteristics have been collected on 1 Water Tank Coatings.

Industry Performance Standards: Product information submitted by biobased manufacturers indicate that have typically been tested to the following industry standards:

- American Society for Testing and Materials #D4541-95e1 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers

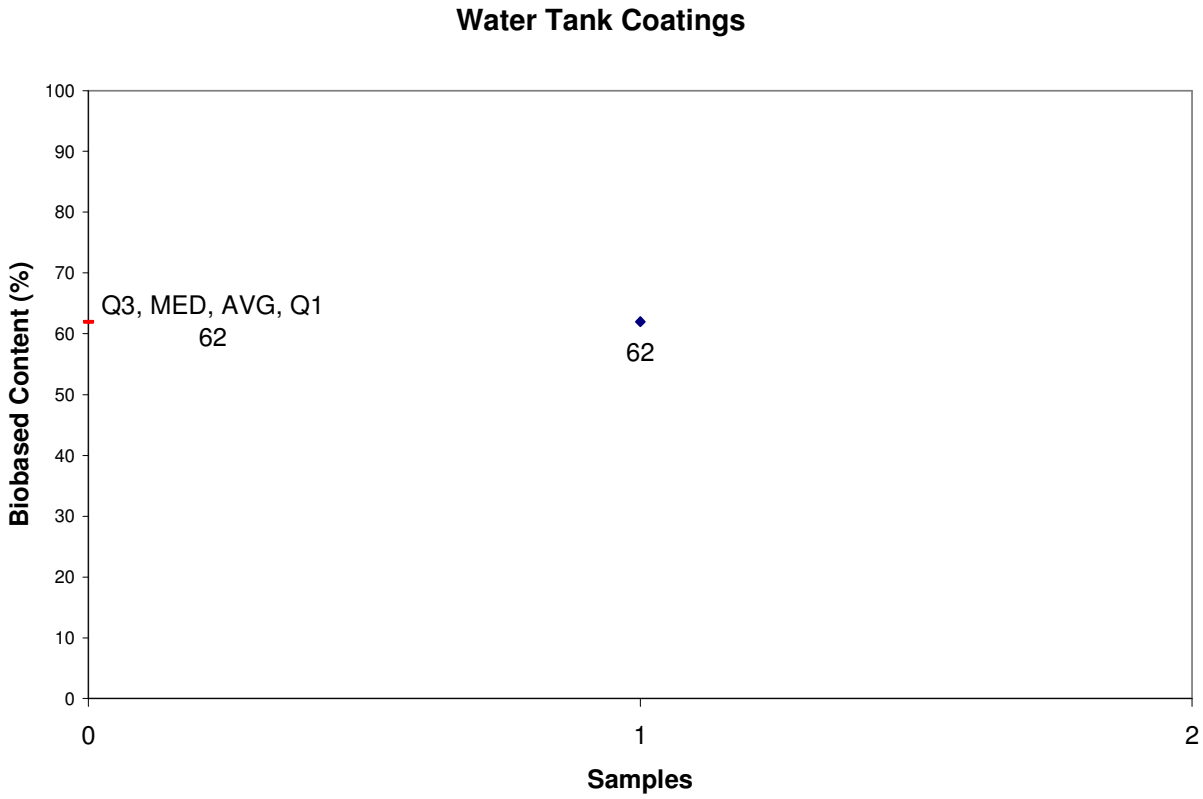
Samples Tested for Biobased Content: 1 samples of Water Tank Coatings have been submitted to independent laboratories for biobased content testing as specified by ASTM standard D6866-04.

Biobased Content Data: Results from biobased content testing of Water Tank Coatings indicate a range of content percentages from 62% minimum to 62% maximum biobased content as defined by ASTM D 6866-04. A detailed distribution of biobased content levels is included as Appendix A.

Products Submitted for BEES Analysis: Life-cycle cost and environmental effect data for 1 Water Tank Coatings have been submitted to NIST for BEES analysis.

BEES Analysis: The life-cycle costs of the submitted Water Tank Coatings range from $3.12 minimum to $3.12 maximum per usage unit. The environmental scores range from 0.0083 minimum to 0.0083 maximum. A detailed summary of the BEES results is included as Appendix B.

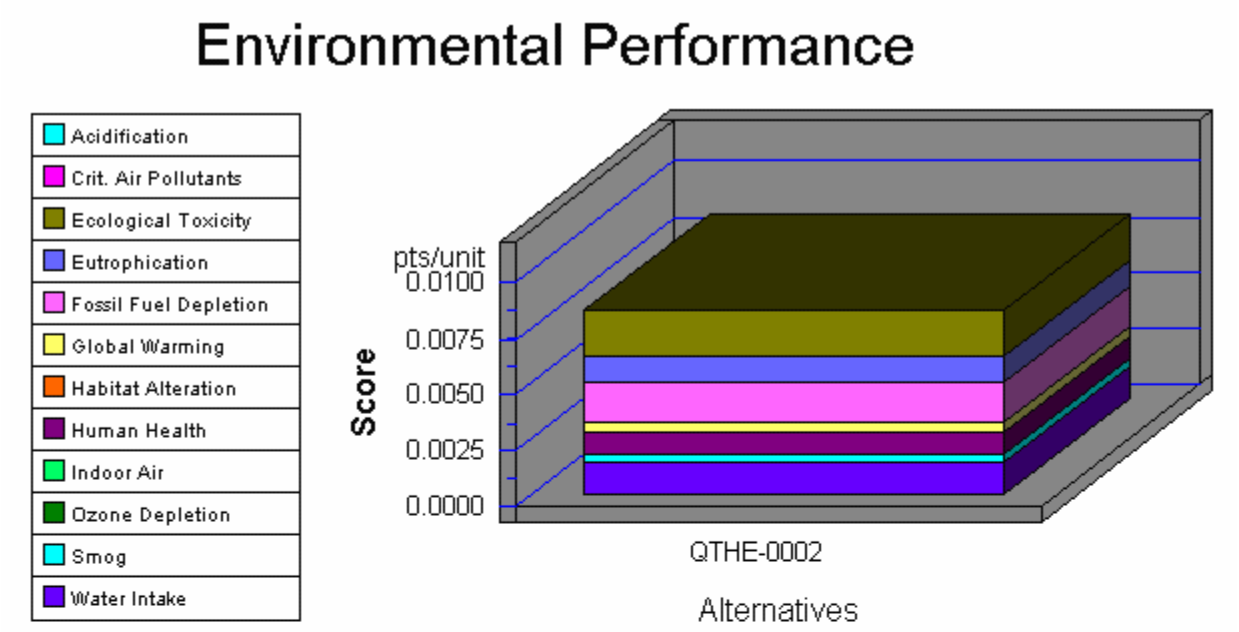
Appendix A - Biobased Content Data



	Manufacturers Identified	Products Identified	C14	BEES
1	QTHE	QTHE-0002	62	yes

Appendix B - BEES Analysis Results

Units: One 55-gallon Drum

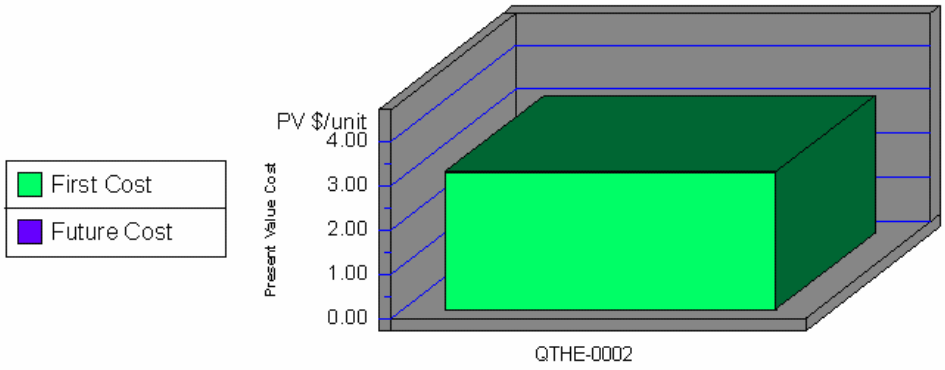


Note: Lower values are better

Category	QTHE-0002
Acidification--5%	0.0000
Crit. Air Pollutants--6%	0.0000
Ecolog. Toxicity--11%	0.0021
Eutrophication--5%	0.0012
Fossil Fuel Depl.--5%	0.0017
Global Warming--16%	0.0005
Habitat Alteration--16%	0.0000
Human Health--11%	0.0010
Indoor Air--11%	0.0000
Ozone Depletion--5%	0.0000
Smog--6%	0.0003
Water Intake--3%	0.0015
Sum	0.0083

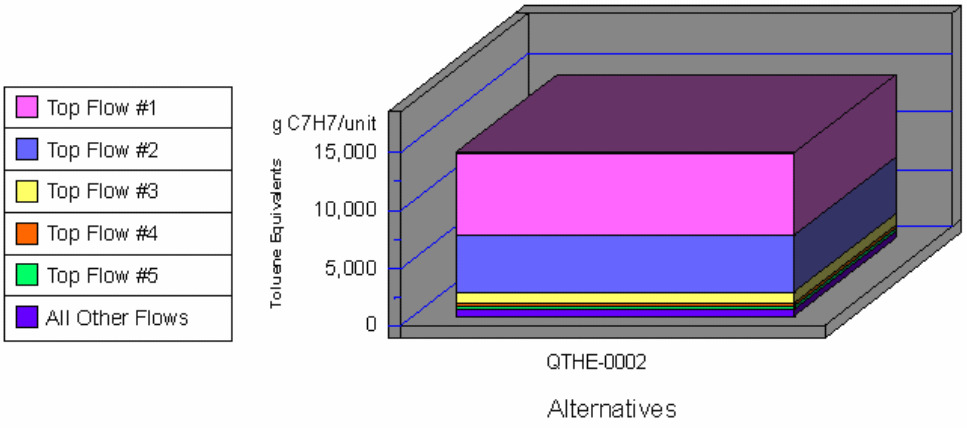
Appendix B (continued)

Economic Performance



Category	QTHE-0002
First Cost	3.12
Future Cost– 3.9%	0.00
Sum	3.12

Human Health by Sorted Flows*



Note: Lower values are better

Category	QTHE-0002
Cancer–(a) Atrazine (C8H14ClN5	7,121.25
Cancer–(w) Phenol (C6H5OH)	4,921.05
Cancer--(w) Arsenic (As3+, As5+	991.75
Cancer–(a) Metolachlor (C15H22	287.49
Cancer–(a) Cyanazine	250.04
All Others	624.89
Sum	14,196.46

*Sorted by five topmost flows for worst-scoring product